Society Reports.

PHILADELPHIA NEUROLOGICAL SOCIETY.

April 25th, 1898.

The President, Dr. Francis X. Dercum, in the chair.

Dr. F. X. Dercum presented a case of

TABES WITH INTERCURRENT HEMIPLEGIA, WITH RETURN OF THE KNEE-JERK UPON THE PARALYZED SIDE.

The family history of the patient, a brakeman, was negative. He had had one attack of gonorrhœa, but denied syphilis. He married in 1873, and his wife has had four children, all of whom are living and well, and has had no miscarriages. In 1883, while working on a railroad, he was run over by two cars; his body was badly bruised, and he sustained a compound fracture of the skull. He was unconscious two days; was operated upon, and apparently fully recovered.

Some years afterward he noticed that he was becoming unsteady and awkward in his movements, and by the latter part of March, 1896, these symptoms had increased to such an extent that he could accomplish his work only by great effort. He does not recall any other symptoms. He was finally obliged to stop work altogether. He remained in this condition until October 29th, 1896. On this date he went to bed about 8 o'clock, apparently as well as usual. During the night, as he expresses it, he "went crazy"; he lost all power in his right arm and leg, talked with difficulty, and was out of his mind and very violent, attempting to injure persons about his bed. It was necessary to hold him. He remained in this condition about three weeks, after which his mind gradually became clear. When he recovered his senses, he talked with difficulty, and his right arm and leg were paralyzed, the arm being the most affected. He noticed also that his vision was becoming impaired, and three months after the attack of paralysis the right eye was quite blind. The patellar reflexes were absent. He has remained in this state ever since.

At present the patient walks with difficulty, requiring assistance after every few steps. A right-sided hemiplegia exists, the right arm being semi-flexed and the fingers held in a position of secondary contracture, while the right leg is dragged in walking. A study of the movements of the left arm and leg reveals decided ataxia, especially in the leg. On handling the right arm, very little resistance is experienced in extending the forearm or the fingers. In other words, secondary rigidity is but slightly, if at all, present, although the position involuntarily assumed by the arm is that of secondary contracture. The right leg also is flaccid. On testing the knee-jerks the left is absent, but the right quite marked. No ankle clonus, however, can be elicited, nor can any tendon reaction be discovered in the right arm.

The sensation in the legs is somewhat retarded. An examination of the eyes reveals the presence of Argyll Robertson pupils. The pupils are contracted to two mm. in diameter. The optic nerve of the right eye is completely atrophic, and the left also is atrophied, especially upon the temporal side. Vision in the right eye is entirely absent.

A study of this case permits of no other conclusion than that this is an instance of tabes, in which a hemiplegia occurred, in all probability due to hemorrhage into the internal capsule, and in which the knee-jerk returned upon the paralyzed side. Dr. Hughlings Jackson reported a similar case some years ago. The return of the knee-jerk is explained by Dr. Dercum as follows:

The tonus of the muscles depends not only upon the impulses streaming into the cord from the motor area of the brain, but also upon the impulses streaming into the cord from all the other areas of the cortex, from the basal ganglia, the pons and medulla oblongata. It would seem to be the function of the neurons of the motor area to direct and control these impulses through the lateral tract. The lateral tract being destroyed, it follows that the impulses streaming into the cord from other sources cause an elevation of the muscle tonus above the normal upon the paralyzed side. It is in this way that we can best account for the rigidity, contracture and exaggerated tendon reactions in ordinary cases of hemiplegia, and this theory certainly enables us to explain the curious phenomenon of a return of the knee-jerk in a case of tabes.

DISCUSSION.

Dr. Wharton Sinkler asked whether Dr. Dercum could give any explanation of the fact that the knee-jerk had not returned on both sides. In hemiplegia, occurring in previously healthy individuals, there is grossly exaggerated knee-jerk on each side, as the result of degeneration in both pyramidal tracts.

Dr. Dercum replied that in ordinary hemiplegia we do not have a degeneration which is absolutely confined to one side of the cord. There are a certain number of fibres which do not decussate, and there are others which, though they decussate, are connected with the so-called sound side of the cord, so that the pathological elevation of the muscle tonus is shared by both sides. In his case the muscle tonus had been sufficiently raised on the paralyzed side to cause a return of the knee-jerk, but not on the "sound" side.

Dr. A. Ferree Witmer exhibited

A CASE OF AMYOTROPHIC LATERAL SCLEROSIS.

The patient was a male of 45 years, temperate, a lathe worker, and with a good family history. He had had typhoid fever seven years previously. His personal history otherwise was negative. His present illness dates from December, 1896. The onset was slow. The first symptom was quivering of the muscles at the base of the left thumb. The wasting, rapidly involving the entire upper extremities, began in the left hand. During the progress of the disease the left arm became entirely denuded of hair, which, however, at the present time is fully restored. For the past nine years he has been sexually weak, but has had no disturbances of bladder or rectum.

At present marked wasting of both upper extremities, especially of the left, is noted. The flexion and extension on the left side are nil. The paralysis is flaccid (type of Leyden). The electrical reactions with the galvanic current are quantitatively lessened, being absent over the most atrophied parts. Deglutition and respiration are normally performed. The gait and station are normal. The knee-jerks are plus. Abortive clonus exists on the right side, but clonus is marked on the left side. The elbow jerks are present on the left side. No disturbance of the special senses or of general sensibility is noted. The trophic disturbance and non-involvement of the lower extremities Dr. Witmer considered particularly noteworthy.

DISCUSSION.

Dr. Spiller thought that the case could hardly be considered one of pachymeningitis cervicalis hypertrophica, chiefly on account of the absence of pain and sensory disturbances. Unless we should regard it as one of the rare instances of syringomyelia, without involvement of the sensory fibres, it could hardly be a case of syringomyelia. The symptoms were not those of spinal tumor or myelitis, but were those which we believe result from lesions of the lateral columns and anterior horns of the cord.

Dr. John K. Mitchell said that it is very common in trophic lesions to see both loss of the hair and growth of the hair. Sometimes the growth will be increased at first, or the hair may at first drop out, and then return with increased growth, or the growth may increase late. As to theories, he had none to offer; but all of these conditions he had seen following nerve lesions. He believed that sometimes a part of the increase is due to the rubbing and the applications resorted to as measures of treatment.

Dr. Witmer stated that he had called particular attention to the change in the growth of the hair, because that is supposed to be due to trophic lesions, and trophic lesions are said not to be present in amyotrophic lateral sclerosis.

Dr. J. W. McConnell presented

A CASE OF OBJECTIVE TINNITUS IN A PATIENT WITH GRAVE HYSTERICAL SYMPTOMS.

The patient was a woman, 20 years old. In 1890 a habit spasm of the facial muscles seemed to follow a severe accidental hemorrhage. The affection was migratory, implicating first one, then another group of muscles. She always had perfect control of the tongue, but had occasional attacks of paralysis of the right lower extremity. This condition persisted for four years, and was followed by a state of perfect health for eighteen months. In 1895, absent-mindedness and loss of memory evidenced a change in her character, and tonic convulsions, general in character, but without loss of consciousness, were added to the symptomatology. These convulsive seizures were of two kinds, one the mother described as "unconscious spells," in which the patient seemed to fall asleep for two or three minutes without muscular movements. The other variety, "conscious spells," were, according to the description, tonic convulsions without loss of consciousness. Shortly after these attacks began three nails of one foot dropped off, apparently spontaneously; those of the other foot seemed ready to drop, but were not shed.

The "unconscious" spells later took on a different form. Consciousness seemed to be lost. There was no spasm, but the patient assumed attitudes of joy, sorrow or prayer, or performed acts suggested by her conversation or employment immediately previous to the onset of the attack. She never fell, never injured herself, sometimes opened and sometimes closed her eyes, recovered almost immediately, and continued her work or talk.

She now has hyperæsthesia of ovarian, mammary and spinal regions. At times there is apparently no secretion of urine, at least, none is passed through the natural passage for as long as forty-eight hours. Then, again, she has polyuria. She says she "has a clock in her head," and by listening a few inches from the right ear a distinct ticking or clicking noise is heard, averaging ninety-four times a minute. It is not synchronous with the pulse, and is audible with the mouth shut or open.

Under hypnotic suggestion the patient has vastly improved, and many of the symptoms mentioned have disappeared. Dr. McConnell thought that the case was one of grave hysteria.

Dr. John K. Mitchell read a paper on

CASES OF TRIGEMINAL SPASM: RESECTION—PROBABLE PRESENCE OF SENSORY FIBRES IN THE SEVENTH NERVE. (See page 392).

DISCUSSION.

Dr. Charles K. Mills thought that the first explanation which Dr. Mitchell suggested was more probably the correct one, although it was true that some records indicated a sensory distribution in the seventh nerve. He said that members of the society would probably recall that he had directed attention, and was probably the first to do this, to the fact that both in hysterical and in organic hemianæsthesia we very commonly have preservation of sensation in certain portions of the face on the affected side of the body, that part being usually a part or all of the region here indicated. He referred to a diagram in his book illustrating this. One of his cases was a patient upon whom an autopsy showed a lesion in the thalamus and a portion of the internal capsule. This would indicate that each side of the neuraxis supplies both sides of the face, near the median line, with nerves of common sensibility. Destruction of one side, therefore, would not necessarily cause anæsthesia, or, at least, persistent anæsthesia, on either side in this region.

Dr. Spiller called attention to the very careful dissections made by Zander, which show that the diagrams representing the distribution of the fifth nerve are incorrect. The fibres of the different branches of the fifth nerve go further than we suppose. He had seen cases of facial paralysis in which pain was marked, and thought that it is a mistake to say that the facial nerve is *purely* motor.

Dr. John K. Mitchell remarked that if the explanation of Dr. Mills is the correct one, viz., that both sides of the face are supplied by each nerve, we should not expect to find anæsthesia at all immediately after operation. A careful study of the sensory changes in a sufficient number of cases of facial palsy would help to settle the question under dispute.

Dr. Wharton Sinkler reported

A CASE OF FUNCTIONAL TREMOR SIMULATING DISSEMINATED SCLEROSIS.

A young man, aged 25 years, suffered from an excessive and exaggerated intention tremor. He had an excellent family history; had always been temperate in his habits, and denied any venereal disease. About eighteen months before coming under observation he noticed a slight jerking in the left leg while walking, and, soon after, tremor on voluntary effort was observed in the right hand. The symptoms became markedly accentuated, in spite of complete rest in bed for several weeks, and, finally, the patient became unable to walk on account of want of control of the right leg. A coarse tremor in the left arm, whenever any attempt was made to move it, was developed to such an extent that he was unable to make any use of the arm. Internal squint, from paralysis of the right internal rectus, also existed.

The patient said that at one period he was unconscious of his surroundings. He held conversation when necessary, but afterward did not remember what occurred during this time. After the tremor had lasted for eight or nine months in the left arm and leg, the right arm and leg became affected, and as the tremor developed in the right side, the left side recovered. He was seen by the speaker in November, 1897. At that time he was able to walk, but required assistance, as incoördination in the movements of the left leg was marked, and as a result there was a tendency to pitch to one side. The left arm and leg were apparently normal. He used the left hand for shaving, writing, and for general purposes, without any tremor whatever. Any attempt to use the right hand brought on excessive tremor, which was identical with the intention tremor of disseminated sclerosis. While at rest no tremor was present in the arm or leg. The knee-jerks were excessive, but no ankle clonus was noted. No facial paralysis existed, although the expression was blank. The speech was slow, drawling and scanning, and the patient was easily moved to laughter or tears. His mental condition did not seem to be up to the average. An examination of the eyes revealed no changes in the muscles or in the fundi.

After being under treatment for three or four weeks his condition improved very materially, and he was able to walk about, but soon after there was exacerbation in all of the symptoms, and a return of tremor to the left side. Then tremor developed in the hands while they were at rest. In January, 1898, after a month of absolute quiet and the use of the Paquelin cautery to the nucha, and the administration of hyoscyamus, the patient began to improve again, and became able to feed himself with the left hand, and to walk about with assistance. At the present time the patient's condition is as follows: There is no tremor in either limb while at rest, but any attempt at movement with the right arm brings on excessive tremor. Slight tremor is still present in the left hand, but this does not interfere materially with the use of the hand. Dr. Sinkler considered the case one of functional tremor, and thought that it was probably hysterical, although many of the stigmata of hysteria were absent.

DISCUSSION.

Dr. James Hendrie Lloyd said that the diagnosis of functional tremor is an important and interesting point in clinical study. He thought that the important question was the elimination or establishment, as the case might be, of hysteria. Where, as in Dr. Sinkler's case, the tremor was shifting in character, passing from one side to the other, the inference was very strong in favor of the possibility of its hysterical origin. He hardly thought that the absence of sensory stigmata and of contraction of the visual fields was positive proof against hysteria. A few years ago he put on record a very interesting case of hysterical tremor, associated with anorexia and great emaciation. In that case the symptoms were shifting, coming and going, with some affection of speech and constant vomiting. That patient made a perfect recovery. She has since married and had several children. Cases of this form of hysteria have been recorded as cases of disseminated sclerosis cured by hypnotism. A French observer, Luys, has claimed that he cured two cases of disseminated sclerosis by hypnotism, with the aid of revolving mirrors. Dr. Lloyd had no doubt these were cases of hysterical tremor, not disseminated sclerosis.

Westphal once described two cases of pseudo-sclerosis, in which the autopsies were entirely negative. Without these autopsies the cases would probably have continued to be regarded as organic. This "pseudo-sclerosis" of Westphal has been justly relegated by French critics to hysteria.

Dr. John K. Mitchell was astonished to hear any one lay stress on the absence of changes in the visual fields as evidence against hysteria. These changes are rather the exception than the rule in hysteria. Not more than one in eight or ten has distinct concentric narrowing of the fields, and not more than one in twenty any change in the color fields.

He had under observation a case of hysterical tremor which resembled in character that described by Dr. Dercum and Dr. Parker as being brought on by continuous slight muscular effort of one kind. The man even had been thrown to the floor by the violence of the general clonic movement resulting from the tremor, which had its origin in the effort to supinate, or to hold supine, the right hand.

(To be continued)